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ABSTRACT

The role of the project supervisor in implementing the Follow Through program's Direct Instruction Model is described in this report. The two most important aspects of effective supervision are identified as training and monitoring. The report first describes workshop training, focusing on twelve general conditions for instruction and four specific teaching techniques, and discusses classroom followup to the workshop sessions. The second part of the report details the monitoring of instruction by keeping track of daily progress through the prescribed lesson sequences as well as by using criterion- and norm-referenced tests. The report concludes that the success of the strategies for implementing Direct Instruction indicates improvements that could be made in training, monitoring, and supervision in other educational situations. (PGD)

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Implementation from the Perspective of a Project Supervisor

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Paper presented at AERA, Los Angeles, 1981.

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Follow Through provided the opportunity and necessity for developing implementation perspectives and strategies that differ from those in traditional settings. Sponsors were by definition "away from" their sites, and thus it was important to develop ways to know what was going on in their absences. Large numbers of field staff had to be trained in a short period of time. Sponsors would designate "field personnel" to serve as their agents for staff training and monitoring. There were no local specialists for sponsors to turn to for management of their field programs, the sponsor staff had to provide the staff to do it.

All sponsors had the same opportunities to develop techniques and strategies for field implementation, but experience has shown that sponsors responded to these opportunities differently. Green (1976) suggested that the styles of the field managers (the ways in which they dealt with training, monitoring, and generally responded to implementation issues) closely mirror the philosophies of the models they espoused. If this observation is accurate, it is not surprising that the Direct Instruction Model from the University of Oregon developed strategies for field implementation that are also very direct.

The model described here is one that has evolved so that it now focues on two major settings (workshops and classroom followups) for staff development. In both of these settings training focuses on general management and specific training practice. Detailed monitoring procedures for assessing teacher and student performance link the staff development training to classroom performance where both criterion-referenced and norm-referenced measures are used. The procedures developed by the Direct Instruction Model suggest implications for other models in other settings. They have produced potential applications for others involved in program implementation.

The perspective of a Project Supervisor that this paper deals with is that role developed for implementing Direct Instruction Follow Through over the last thirteen years. During that time I have managed four sites for the Direct Instruction Model, University of Oregon, working with more than a hundred and fifty teachers and aides, and several thousand students. While this perspective developed from Follow Through settings and experiences, I will demonstrate how these behaviors can be implemented in traditional settings.

The two most important variables for effective supervision in the Direct Instruction Model are training and monitoring. Training prepares the staff for implementing the model with students. Monitoring provides constant checks on how the implementation is going. The instructional materials that are used in the model (Distar[r] Reading, Language, and Arithmetic) are also importnat. But, the materials are a non-negotiable component of the model. The training focuses on teaching staff how to use the materials and how to monitor student performance. This type of supervision assumes an articulated program-a program in which teacher and student behaviors are specific.

Given well-articulated materials, some may argue that implementation is easier than it would be in less structured situations. In some respects, this is probably true. One the other hand, one can view the implementation as more complicated because the training "ideal" is clearly specified. The teaching behaviors are novel and take some practice. Regardless of which position one takes, the important considerations are how to train staff to teach the programs, and how to monitor what they are doing.

Staff Development

Implementation begins with training. In the Direct Instruction model, all Project Supervisors are accomplished teachers. They keep up their teaching skills by teaching groups of children when working at their sites. They plan workshops and classroom followups to teach teachers and aides to

establish a variety of general conditions for overall instruction, and they also teach them to use a variety of specific teaching techniques. Teachers and aides are trained in the same way. Training is organized by subject area. Workshops are used for initial training. Then the project supervisor works one-to-one in individual classrooms.

Workshop Training

Workshops occur at the beginning and throughout the school year. During workshops, the trainer provides demonstrations and practice on specific teaching techniques and general information on scheduling, management, and organization. Thus, these are not "talk sessions." They are not designed for small group work on individual projects. They are practice sessions led by the Project Supervisor who serves as trainer. They simulate the small-group teaching in which the teachers and aides will work with children. The emphasis is on practice, though some time is spent on the philosophy and rationale of the programs and techniques. The Project Supervisor paces the practice and monitors the performance of all the participants in the workshop simultaneously. Generally, the workshop focuses first on the general conditions for instruction, and then on the specific teaching techniques.

General Conditions. The model for staff development in part is derived from correlational studies reviewed by Rosenshine (1976) and Medley (1977). It focuses on twelve conditions later identified by Rosenshine and Meyer (1978). These conditions are:

1. instructional settings that maximize student engagement-teaching in small groups so that students are involved
2. a procedure for teaching new material in small steps-breaking down complex skills into sma-l behaviors and presenting those new behaviors in small steps. New skills are usually introduced by the teacher modeling. To introduce a new sound, for example, the teacher would say, "My turn. This is mmm. Listen again, mmmmm." Next the teacher might lead, and finally test by having the students respond by themselves. "Your turn. What sound?"

Leading is used primarily on more difficult tasks or to correct if the students misidentify a sound. The basic model-lead-test sequence is used to introduce new material.

3. a method for correcting student errors-this involves anticipating mistakes students are likely to make and developing adequate correction procedures for remedying the mistakes. Teachers correct incorrect student responses with a sequence that includes the model-lead-test sequence. The fourth step is the return to the beginning of the task. For example, if the student stopped between the sounds when sounding out the word if, the teacher would first model, "Listen to me, I can do it without stopping, iiiiffffff." The emphasis would be on the blend between iiff, and the voice would probably get louder at that point. The lead with the teacher and students responding together is repeated until the group is responding firmly with the teacher. The teacher would next test by having the students respond by themselves. If the students blended the sounds, sounding out the word without stopping, the final step would be to return to the beginning of the task. Corrections are made to the group, keeping everyone busy, and serving as a precaution for students who are likely to make the same mistakes.
4. procedure for active student practice-students respond at a high rate, and if a student does not respond, that lack of response is considered an "error" because it is impossible to know if the student would have answered correctly or incorrectly
5. procedure for recycling students through the new material until they achieve mastery-this assumes that students will need to repeat new material several times before mastering it
6. monitoring daily work of each student-setting up procedures for checking and firming students on independent work
7. obtaining student attention and active student practice-this kind of teaching requires that all students attend during all of the practice

8. methods for monitoring weekly and monthly progress-these monitoring methods are unique and will be explained in the next part of this paper
9. teaching to criterion-teaching all of the children in a group until they can respond independently and correctly, without hesitation. Group corrections and individual turns help the teacher watch the entire group and judge if all students have mastered a task
10. sufficient time-time requirements are generally thirty minutes of teacher-directed activity for each small group in each of the three major areas of basic skills (reading, math, and language). In addition to the teacher-directed time, students spend another thirty minutes working independently. An additional 25 minutes of large group instruction is scheduled for math and spelling. Students do independent work for about 70 minutes each day. Basic Skills instruction is over three hours every day.
11. grouping-placement tests administered at the beginning of the year are used for starting students into the programs. Most classes have three homogeneous groups for the three major areas of instruction. Large group instruction is done for social studies, music, art, and science. Children remain in groups as long as their performance matches the performance of the other students in thr group. Students may be assigned to new groups is they are performing significantly above or below the other group members
12. management-positive reinforcement is used as the major type of management technique. Small groups work simultaneously with the teacher and the aide while the third group works independently at their desks. Children learn to work alone while the teacher and aide work with the other groups. Often, teachers use point systems or other types of rewards for groups or individuals who are performing well. The rules are stated positively such as, "I will raise my hand if I have a question," or, "walk quietly to the restroom." The emphasis is upon teaching and then reinforcing the behaviors that the teachers want the children to have.

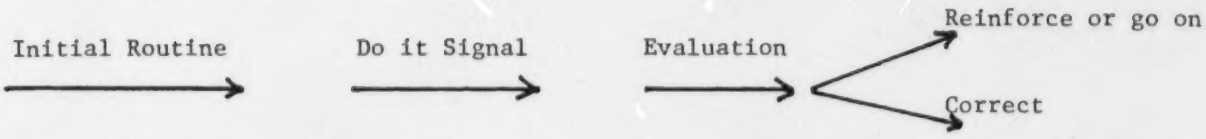
These twelve conditions comprise the general content of the workshops. In addition to these general instructions, there are several specific teaching techniques that teachers are trained to do.

Specific Teaching Techniques. Several teaching techniques are unique to direct instruction teaching. These techniques form the content of what is practiced with different formats from the programs in the workshops. Among these techniques are signal, pacing, reinforcement, and individual turns. Generally, these techniques are practiced using a model-lead-test sequence and corrections. The Project Supervisor again serves as trainer and models the teaching behavior, then leads the behavior, and finally tests by having the group "teach," while the trainer responds as a student. During this sequence, the trainer and teachers alternately perform the role of "teacher" and "student." When the trainer tests, the teachers are the "teachers" and the trainer becomes the "student." This sequence of modeling, leading, and testing most recently has been identified by Stevens and Rosenshine (1981) as prevalent in studies by Bloom and his students (1976), Good and Grows (1979), and Anderson, Evertson, and Brophy (1979) as well as the University of Oregon Direct Instruction Model (Becker, 1977).

In practice, the sequence progresses as depicted in Figure 1 below.

Figure 1

Teaching Flow Chart



The trainer models, the teachers respond to a "do it signal," and the trainer evaluates their performance. If the performance is judged acceptable, the trainer may simply continue the group practice or reinforce. If the trainer judges the performance to be unacceptable, the correction procedure begins. These procedures are used to train the specific techniques that appear below:

1. signals-Direct Instruction lessons are designed with signals, motions that

the teachers or aides make to keep the group together. Other researchers (Brophy and Evertson, 1974) found choral responding allowed some students to echo the responses of others. Signals prevent echoing because the students know when to respond, and they respond together.

2. pacing-the suggested pace is brisk. Teachers present tasks quickly and ask questions to confirm children's ability to answer the questions. The group gives hundreds of responses during each small group lesson. More sophisticated teachers learn to slow down a bit before difficult information and pause before returning to the overall brisk pace of the lesson.
3. reinforcement-praising the students for their performance is a standard part of the teacher's presentation. Teachers learn to give "task specific" praise such as, "Wow! You got all the sounds on that page correct. Let's move on." This kind of praise tells the kids precisely what they did that was right. General comments such as, "You are really watching the book and talking big," also tell the children what they are doing right. Class rules are of this same positive type. They emphasize what the children are supposed to do.
4. individual turns-individual turns allow the teacher to monitor individuals within the group. About three fourths of the turns go to the group. The remaining turns go to individuals, primarlily to the low performers. It is efficient to work primarily with the group, but it is important to check out individuals. Individual turns are recommended after the group is firm.

These techniques are unique to the Direct Instruction program. They form the cornerstones for the staff development training workshops. Effective implementation is measured in terms of a teacher's ability to implement all of these techniques while teaching small groups and managing the entire classroom.

Workshops provide a setting for working with many staff. They are the first step. Repititous practice is accomplished efficiently. Teachers' performance in the workshops is important, but the real tests are in the classroom. So, the second,

and perhaps the most important phase of staff development is classroom follow-up. The Project Supervisor now works one-to-one with a teacher or aide in the classroom.

Classroom Followup

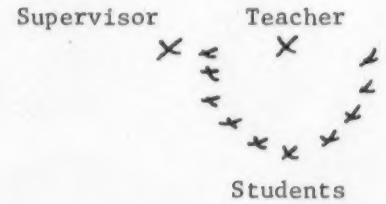
Classroom followup sessions begin as quickly as possible after workshop training. Project Supervisors anticipate that workshop performance does not necessarily predict which teachers will be effective implementors. The classroom setting is infinitely more complex than that of the workshop. General management and small-group teaching skills are equally important.

Project supervisors generally appear in classrooms unannounced, though they often schedule visits to observe the lowest-performing group. They focus on the lowest-performing groups because all of the teaching problems will show up with the lowest-performing group. These groups need the most careful teaching and monitoring.

These classroom followups are much more than traditional "observations." The supervisor arrives while a group is in session and usually pulls a chair up close to the teacher-see figure 2 below.

Figure 2

Classroom Followup



The supervisor sits quietly, watching the students until some specific teacher or student behavior prompts the supervisor to demonstrate. There may be student errors, teacher errors, problems with pacing, or other presentational errors. Whatever the situation, the supervisor will generally ask the teacher to let him/her teach a bit, and comment to the students, "Now you have two teachers," or something to that effect. This changes of hands usually takes place very quickly and matter-of-factly so that the students know that they are getting a new teacher and the teacher sees that a demonstration is about to begin. The supervisor now teaches the same

the same exercise that the teacher was teaching, and the teacher watches. Occasionally, the supervisor will annotate what he/she is doing if the situation warrants it. The annotation might go something like this, "Count how many times I repeat this part of the exercise in the next minute," or "Now I will call on Maria because the whole group is responding well together." These annotations and demonstrations draw the teacher's attention to specific things the supervisor is doing. Recent research by Gersten (1981) shows that the longer teachers are in the program, the more they look forward to and like these demonstrations.

As soon as the trainer has demonstrated and perhaps annotated, she/he will turn the group back over to the teacher. The trainer then watches the teacher do what she/he just demonstrated. This type of classroom followup follows the same model, lead, test sequence that was used in the workshop. It is basically the same procedure that the teacher uses with the students. It is equally effective for training teachers and aides.

This kind of assistance takes place often in Direct Instruction classrooms. Supervisors observe and demonstrate for the high, middle, and low-performing teachers and aides on at least a weekly basis. They often design observation schedules so that in the beginning of the year, high-performing staff are "checked out" rather quickly. Once these staff are checked out, they can then concentrate on the middle-performing staff. Concentrated work with the low-performing staff really waits until the high-performers and middle-performers are generally implementing successfully. Figure 3 shows the monitoring form currently in use at one of the Direct Instruction sites. Note that virtually all of the general and specific teaching techniques covered in the workshops are included on this form.

Figure 3

Teacher Observation Form

Teacher Performance

Subject_____ School_____

Level_____ Teacher_____

Lesson_____ Supervisor_____

Group_____ Date_____

Strong Areas:

_____Formats_____ Reinforcement_____

_____Signals_____ Watching Children_____

_____Pacing_____ Corrections_____

Comments:

Assignments: Date Due:_____

Dates Checked:_____
Checked Out:_____
Redo:_____

In addition to training the teaching staff in general management, organization, and specific teaching techniques, the Direct Instruction model places a great deal of emphasis on monitoring. Monitoring occurs at all levels of the implementation to guarantee that people are doing what they are supposed to be doing.

Monitoring

The Direct Instruction Model includes a great deal of monitoring. Monitoring both the quantity and quality of instruction is a key element of success. Since the levels in each subject are numerically sequenced, from 1-160, it is not difficult to monitor the quantity of instruction.

At the beginning of each year, the Director meets with each classroom team (teacher and paraprofessional), and they set numerical goals for each group in the class for the year. Most average groups are expected to complete one lesson each day in each subject area. Adjustments are made for faster and slower performers.

Every two weeks these "lesson days" are collected. The results are monitored by the director, the manager, and the principal. Progress is computed at the end of each quarter of the year, with provisions for goal adjustments. However, quantity without corresponding quality is meaningless. If this were all that was tracked, teachers might be inclined to "turn the pages," completing lessons regardless of how students were performing. This danger is avoided with the use of criterion-referenced tests that correlate to ten-lesson instructional blocks. Norm-referenced tests are also used to monitor student achievement gains. The norm-referenced measures allow comparison of each group to national norms.

All three types of monitoring are important. They permit measuring group performance in a variety of ways.

Lesson Day In Program. Figure 3 represents a "typical" Lesson Day in Program (LDIP) chart. This chart shows the progress in four classes. There is one level I class, a level II class, and two level III classes. The level I class has four groups of students. The other classes have three groups of students in each area. Progress is shwon for reading, language, and arithmetic. Teacher Siegel's performance is good in all subject areas, the highest-performing groups (group 1's) have completed more lessons in every subject area than there have been days of school. Groups 2 and 3 are also at or above school day performance. Group 3's are covering about a lesson a day. This is ideal performance.

Figure 4

Lesson Progress Report Form

LESSON PROGRESS REPORT FORM

SITE Champaign DATE April 3, 1981 SCHOOL DAY 107

TEACHER	Group	READING Level	READING Day	READING Gain	ARITHMETIC Level	ARITHMETIC Day	ARITHMETIC Gain	LANGUAGE Level	LANGUAGE Day	LANGUAGE Gain
Siegel	1	I	120	12	I	141	15	I	150	20
	2	I	110	10	I	130	9	I	140	10
	3	I	107	10	I	130	9	I	130	10
	4	I	90	8	I	110	7	I	120	9
Gilpin	1	II	129	15	II	140	16	II	140	20
	2	II	110	10	II	128	14	II	130	10
	3	II	99	9	II	118	10	II	110	10
	4	—	—	—	—	—	—	—	—	—
Silver	1	III	90	5	III	100	6	III	95	7
	2	III	86	4	III	86	5	III	87	5
	3	III	60	4	III	75	4	III	60	4
	4	—	—	—	—	—	—	—	—	—
Liebert	1	III	67	3	III	80	4	III	90	5
	2	III	60	4	III	70	3	III	90	5
	3	III	49	4	III	67	3	III	90	5
	4	—	—	—	—	—	—	—	—	—

Contrast teacher Siegel's performance with the performance of the other teachers. Teachers Gilpin and Silver are performing lower than teacher Siegel. General patterns emerge in that groups that are performing alittle below par in one subject area are generally performing poorly in other areas as well. Teacher Liebert is having

problems in every subject area, and with every group. All groups are on the same lesson in Language, so that instruction may be given to the entire class. In Reading, all groups are many lessons behind the school day. There is a very similar pattern in Arithmetic.

The LDIP's completed on a bi-weekly basis (every ten school days) provide on-going information on the quantity of lessons that the teachers are covering. This information shows one side of the instructional picture, the other side is shown by the information gained by the administration of the criterion-referenced tests.

Criterion-Referenced Tests. The Criterion-Referenced Tests correspond to ten-lesson instructional blocks. The tests were developed for all three levels of the Distar® Reading, Language, and Arithmetic programs. In the Direct Instruction Model, paraprofessionals are trained to administer the tests. Much of the lower-grade testing is done individually, though by third grade almost all of the tests are administered to groups. Sample scores from a classroom are presented in Figure 5. These are the results from a group on Lesson 82. This is Group II, the middle-performing group. Note that there are seven children in the group. Four children have perfect scores, 100%. One child scored 50%, another child 75%. The seventh child was absent. The scores in the extreme right column are for individuals. The percentage scores at the bottom of the columns are for the test items in this segment of the arithmetic test. There were four items. There are three items scored at 93%, and one at 100%.

These data show that four members of the group are doing very well, one is in trouble on one skill, and the other child missed half of the items. Note that the children missed three different items. Thus, remediation for this group is an individual problem. If several children had missed the same item, remediation would focus on an individual skill. Not only would the teacher focus on that skill with the students; the supervisor would also work with teacher, for the difficulty might be in the teacher's presentation.

Figure 5

Group Summary Form

GROUP SUMMARY FORM

Circle one:
(Reading I,) II, III
Arithmetic I, II, III
Language I, II, III

Test Section 8
Lesson Number 82
Group II
Teacher Siegel
Date December 7, 1981

Names	Items 1	2	3	4	5	6	7	8	9	10	Percent Passed
1. Dave Kirby	+	+	+	+							
2. Sharon Dryfuss	+	+	+	+							100%
3. Bob Wilson	+	+	+	+							100%
4. Jane Clapp	+	+	+	+							100%
5. Bob Stevens	+	+	+	−							100%
6. Steve Alessi	+	−	−	+							75%
7. Lee Tillman	Absent										50%
8.											
9.											
10.											
Percent Passed	100	83	83	83							

Fractions to Percents for Percent Passed

Items Passed	1	2	3	4	5	6	7	8	9	10
1	100									
2	50	100								
3	33	67	100							
4	25	50	75	100						
5	20	40	60	80	100					
6	17	33	50	67	83	100				
7	14	29	43	57	72	86	100			
8	12	25	37	50	62	75	87	100		
9	11	22	33	44	55	67	78	89	100	
10	10	20	30	40	50	60	70	80	90	100

These criterion-referenced tests are the check against runaway lesson progress. Students are tested in either reading, language, or math every two weeks. With this schedule, student performance is monitored every other week in one area and every

six weeks in all areas. Problem skills or students show up fast.

LDIP's are used to measure the quantity of teaching. Criterion-referenced tests are used to measure the quality of the teaching. In addition to these program-specific measures, norm-referenced testing is also completed each year.

Norm-Referenced Testing. Norm-referenced tests are also used to monitor student achievement gains. Some districts have their own testing program, though these programs seldom begin before second grade. Because of the inconsistent testing patterns in the different districts, and the variety of tests used, the sponsor selected the Metropolitan Achievement Test (MAT) to use in first, second, and third grade for measures of achievement in reading and math. Language i measured only in the third grade MAT. The Slosson Intelligence Test was used as a measure of Language gain for all children in kindergarten through third grade, and in order to have a measure of decoding for kindergarten students that could also be used in the first, second, and third grades, the Wide Range Achievement Test (WRAT) was selected.

These norm-referenced measures were used in every site for the first ten years of the implementation. Examination of the results of these tests allowed the model to compare the students' performance with national norms. These comparisons have shown the average performance of the students to be at the

.The procedures and techniques described here for staff development and monitoring present a two-fold message: articulate the behaviors that you want, develop strategies for teaching these behaviors, and then monitor staff and students to insure that the behaviors are being done. There are several implications for supervisors in traditional settings.

Implications and Applications

Various implications and applications can be developed from the strategies presented here from the Direct Instruction Model. First, the implementation model is highly interactive. Staff development takes place in two quite different settings, workshops and during in classroom followup. These settings maximize contact between

the training staff and the teaching staff. These procedures could be followed in more traditional settings. It would require supervisors to demonstrate the procedures they advocate, and it would require them to spend more time in classrooms. Both of these changes would cause them to become more familiar with the materials and techniques that their teachers are using, and would perhaps require a reduction in the number of classrooms that they supervise.

The second major implication is that it is necessary to differentiate which portions of the training content are general management information and which are unique to specific materials. Once this differentiate is made, workshop and classroom followup training should focus on both. Once supervisors spend more time in classrooms, they will learn which information presented in the workshops "took," and which the teachers need more work and practice on.

The development of purposeful monitoring behaviors would prove helpful to all administrators and supervisors. Other than reviewing lesson plans, few administrators receive reports that allow them to keep track of what is happening in the classrooms. Keeping some type of Lesson Day Progress information would alleviate this problem greatly. Administrators with this type of system know at a glance how well the classes in their buildings are progressing.

More and more programs are being published with some form of Criterion-Referenced Testing. These tests may appear as "End of Book Tests," or another type of scheduled testing, but many programs do have something similar to this. Seldom are the tests administered, and those that are administered are seldom forwarded to principals and supervisors for review. If such procedures were implemented, children in need of special helf would show up rather quickly and consistently. Early identification would provide an opportunity for remediating the problems or regrouping the children so that they could perform better. Both opportunities would be helpful to administrators, teachers, and parents.

These monitoring procedures also help to "objectify" staff monitoring. With

procedures that focus upon the actual number of lessons that a teacher has taught since the beginning of the school year, and the percentage of students performing well on these lessons, administrators and supervisors can objectively categorize the teaching behaviors of their staff members. They will know immediately which staff are progressing in keeping with time in the school year, which are ahead, and which are behind. The criterion-referenced results also objectify an evaluation of a teacher's performance with mandated materials. Norm-referenced evaluations will simply round out these areas.

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